

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIV. Feb. 8, 1888. No. 6.

EDITORIAL BUZZINGS.

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While the Northwest has been freezing, with the thermometer ranging at 50° to 60° below zero for several weeks—now, the reports are that it is from 50° to 60° above in Missouri, Nebraska, and Kansas, and that bees are sporting in the balmy air. Oh! how changeable!

Conventions.—This week we give up most of our space to the proceedings of three conventions. There are many good points brought out in them, and these reports will repay a careful perusal. Some of the essays will appear later, as we can find room for them. In next week's issue we shall give a report of the New York State Convention.

If the Ground Hog came out of his hole on Candlemas-day (Feb. 2) in this locality he could not have seen his "shadow," and therefore as that "saw" goes, he came out to stay, and we are to have an early spring. We are therefore to be saved from six weeks more of cold weather, which it is claimed would have ensued had the ground hog seen his shadow and gone back into his hole for 40 days.

The Bees are Wintering Well so far, but it is early yet to prognosticate with safety. One correspondent expresses himself in this cautious manner:

So far our bees are "wintering splendidly," but we must not anticipate the story that may be told next April.

Bees Wintering in Box-Hives.—The question is often asked why bees in box-hives fare better in winter than those in frame hives. As a rule they do not fare better; there are some cases reported similar to the following, which comes from Mr. S. P. Stone, of Holly, Mich.:

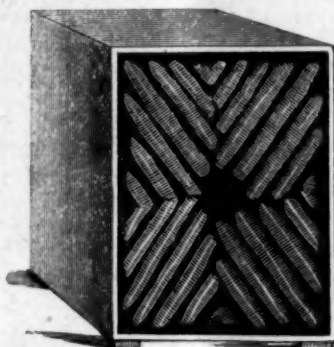
In 1850, in a town adjoining, a swarm of bees was put into a hive, the inside measure of which is 16 inches square and 23 inches high. The entrance is 4 inches long and $\frac{1}{2}$ an inch high. One-third from the bottom is four $\frac{1}{4}$ inch holes, side by side; one-half way up, is one $\frac{1}{2}$ -inch hole, and in the top is a 2 inch auger hole, to admit the bees to a box for surplus. A board is laid over the hole when the box is off. It stands out-of-doors, without protection of any kind, has never been moved, has yearly cast from 2 to 5 swarms, and is in good condition; yet they are native black bees! Mr. Editor, can you tell us why they have thus lived and prospered, while others have perished?

Can we tell what caused the epizootic? Can we determine why yellow fever spreads over a Continent? Can we give the reason for the extreme prevalence of typhoid fever at the present time? These often take possession of a locality, or even a single family, and those on another street or other localities, are not affected by it!

Can we tell "why these bees have lived and prospered while many others have perished?" No. We can "guess" at it—but no one can "tell" with certainty.

A correspondent wrote us as follows some time ago:

One of our neighbors in the fall had 84 colonies of bees in box-hives; but all were dead in the spring but one, and that one was strong, and commenced to swarm early. In the next fall he had 33 colonies in box-hives, and again lost all but the same one, and that cast a large swarm in the following May. In the latter box-hive the combs are



built from each corner to the centre, as shown in the engraving. I know of several instances very similar to the above.

Now, may not this instance serve to illustrate the matter, and help to solve the mystery? Perhaps the box-hive mentioned by Mr. Stone has combs built in a similar manner—fully protected from the winter's cold—thereby saving the lives of the bees during our long and tedious winters!

At least we shall guess that it has, and offer this as our answer to the question.

We are Sorry to learn that Mr. J. Vandervort, of Laceyville, Pa., inventor of foundation mills, has suffered loss by fire.

Where Shall it be?—Many are anxious to know where the next International Convention is to be held. Mr. R. R. Ryan, ex-President of the Nebraska Bee-Keepers' Association, writes thus about it:

I would like to have the National Convention held, if possible, at Columbus, Ohio. Then we could take in the "Centennial," the National Re-union of the G. A. R., and the Bee-Keepers' Convention. If nothing happens lots of the "old boys" will be on hand. Rates will be low, the attendance large, and a grand good time may be expected in all the departments.

So far the votes have been about equally divided between Columbus and Cincinnati. Let the rest of the "votes" be sent in at once, so that the matter may be decided as soon as possible.

Live as Long as Sheep and Hens.—As another example of the ignorant "scribbling" of those who write for the daily press, we may cite the following from the New York Ledger:

The scientific culture of bee-breeding and honey-making is leading to interesting discoveries with regard to honey-bees. According to the reports of experts, queen-bees live as long as sheep and hens, and have marked distinctions of disposition and character, which they so vigorously transmit to their offspring that the introduction of a new queen into a hive will change the character of the entire swarm in a few months. The queen lays all the eggs from which the bees in a hive are hatched, and they take their ruling qualities from her. Hence some swarms are industrious, while others are lazy; some are good-natured, while others are ill-tempered, and so on. As soon as it is found that a queen's progeny are of an undesirable kind, she is killed by the bee-breeder, and another queen put in her place.

Just fancy a queen-bee living as long as a hen or sheep. It is now even questioned whether a queen should not be superseded after the first year of her existence!

Mr. F. A. Lockhart, of Lake George, N. Y., who sent the "item" from the Ledger, comments upon it in these words:

I have seen sheep 12 years old, and hens 14 years old. I never had a queen-bee that lived to be of that age. I do not know where the New York Ledger got its report of experts from. Perhaps where they live, sheep and hens do not live to be very old. I think the experts had better learn a little more about queen-bees, sheep and hens before they compare their ages.

Warm Weather is reported by several in the Northwest, but the following from Mr. John Blodget, of Flag Springs, Mo., written on Jan. 31, 1888, seems to carry off the palm, at 90° in the sun. He says:

My bees had a fine flight on Jan. 29, 30, and 31. It is very warm; the mercury standing at 90° in the sun, and 50° in the shade. My bees are all alive and healthy. I never saw so few dead bees on the bottom of the hives. I could hold all of the dead bees in my hand. They speckled the snow a very little indeed for so long a confinement. I like the chaff packing very much.

New Subscribers can obtain the full numbers for 1887 and 1888, for \$1.75, while there are any sets of 1887 left.



ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Simmins' Non-Swarming System will be clubbed with the BEE JOURNAL for one year, both postpaid, for \$1.25.

Beeswax.—We will pay 20 cents per pound, delivered here, for Yellow Beeswax. To avoid mistakes, the name of the shipper should always be on each package.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write American Bee Journal on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Money Orders for \$5.00 and under, cost 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: \$8.00 per bushel; \$2.25 per peck; 25 cents per lb. *White Clover Seed*: \$10.00 per bushel; \$2.75 per peck; 30 cents per lb. *Sweet, or Melilot, Clover Seed*: \$6.00 per bushel; \$1.75 per peck; 20 cents per lb.—by express or freight.

Photographs of Bee-Keepers.—The "medley" gotten up by E. O. Tuttle, containing the faces of 131 representative apiarists, and a printed sketch of each one, will be sent with the BEE JOURNAL for one year for \$1.75; or we will present it free, by mail, to any one, for a club of three subscribers and \$3.00.

The Convention.—The pamphlet containing the report of the proceedings of the Union Convention in Chicago, is now published, and can be obtained at this office for 25 cents. Or bound up with the history of the International Society, and a full report of the Detroit and Indianapolis conventions, for 50 cents, postpaid.

We Supply Chapman Honey-Plant SEED at the following prices: One ounce, 40 cents; 4 ounces, \$1; 1/4 pound, \$1.75; 1 lb., \$3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. We can supply them at five cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Please to get your Neighbor who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now SO CHEAP that no one can afford to do without it.

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: White comb, 16@18c.; dark, 13@15c.; Extracted, 7@9c. Market dull, but more active demand looked for when weather moderates.
BEESWAX.—21@22c.
Jan. 25. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—Choice comb, 18c., with some fancy held a little higher. Extracted, 7@9c. Demand light.
BEESWAX.—22@23c.
Jan. 21. H. A. BURNETT, 161 South Water St.

DETROIT.

HONEY.—Best white in 1-pound sections, 18@20c. Extracted, 9@10c. Demand brisk.
BEESWAX.—22@23c.
Jan. 20. M. H. HUNT, Bell Branch, Mich.

CLEVELAND.

HONEY.—Best white 1-lb. sections sell at 19@20 cts. Extracted 7@8c. Demand small and supply fair
BEESWAX.—22@25c.
Dec. 15. A. C. KENDEL, 115 Ontario St.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 16@19c.; the same in 2-lbs., 14@16c.; buckwheat 1-lb., 11@12c.; 2-lbs., 10@11c. Off grades 10@2c. per lb. less. White extracted, 8@9c. Market dull.

BEESWAX.—22@23c.
Jan. 20. MCCAUL & HILDRETH BROS., 28 & 30 W. Broadway, near Duane St.

KANSAS CITY.

HONEY.—We quote: Choice white 1-lb., 18@20c.; dark, 16@18c.; choice white 2-lb., 18c.; dark, 15 to 16c. Extracted, white, in 60-lb. tin cans, 9c.; in barrels, 8c.; dark, in barrels, 5@6c. California 2-lb. white comb, 18c.; dark, 16c. Extracted, white, in 60-lb. cans, 8@9c.; amber, 8c.
BEESWAX.—No. 1, 23c.; No. 2, 18@19c.
Dec. 19. CLEMENS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Choice comb, 18@20c.; latter price for choice white clover in good condition. Strained, in barrels, 5@6c. Extra fancy and of bright color and in No. 1 packages, 1/2-cent advance on above. Extracted, in bbls., 8 1/2@7c.; in cans, 7 to 9 cents. Short crop indicates further advance in prices.
BEESWAX.—20c. for prime.
Dec. 19. D. G. TUTT & CO., Commercial St.

CINCINNATI.

BEESWAX.—Demand is good—20@22c. per lb. for **HONEY.**—We quote extracted at 4@5c. per lb. Choice comb, 16@20c., in the jobbing way. Demand fair and supply good.
Good to choice yellow on arrival.
Jan. 24. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, 17@19c.; fancy 2-lb., 15@16c. Lower grades 1@2c. per lb. less. Buckwheat 1-lb., 11@12c.; 2-lb., 10@11c. Extracted, white, 9@10c.; buckwheat, 6@7c. Demand has slackened some, and to make sales we must shade above prices. About Jan. 15 we expect a more active demand.
Dec. 31. F. G. STROHMEYER & CO., 122 Water St.

PHILADELPHIA.

HONEY.—Fancy white 1-lb., 18@19c.; fair 1-lb. 17c.; dark 1-lb. are slow sale at 14@15c.; fancy 2-lb., white, 15@16c.; buckwheat fancy 1-lb., 13@14 cts.; common, 12c. Prices tend downward.
BEESWAX.—23@24c.
Dec. 11. ARTHUR TODD, 2122 N. Front St.

MILWAUKEE.

HONEY.—Choice white 1-lb., 20c.; fair, 19@20c.; 2-lb., 18@19c.; 3-lb., 16@18c. White extracted in kegs or half-barrels, 9 1/2@9c.; in pails or cans, 9 1/2 to 10c.; amber, in 1/2-barrels, 9 1/2@9c.; dark in kegs and barrels, 7@7 1/2c. Demand good, supply fair.
BEESWAX.—22@25c.
Dec. 15. A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—We quote: White to extra, 13@18c.; amber, 12@16c. Extracted, white liquid, 7@8c.; amber and candied, 6 1/2@7c. Market quiet.
BEESWAX.—20@24c.
Jan. 14. SCHACHT & LEMCKE, 129-134 Davis St.

BOSTON.

HONEY.—We quote: 1-lb. sections, 16@17c.; 2-lb. sections, 14@15c. Extracted, 8@9c. The market is not very brisk and sales are slow.
BEESWAX.—25 cts. per lb.
Jan. 12. BLAKE & RIPLEY, 57 Chatham Street.

KANSAS CITY.

HONEY.—We quote: Choice white 2-lb. sections, 17@18c.; dark 2-lb., 14@15c.; choice white 1-lb., 18 to 20 cts.; dark 1-lb., 15@16c. White extracted, 7@8c.; dark, 5@6c. Demand is light.
BEESWAX.—21 to 22c.
Jan. 10. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—Best white 1-lb. sections, 19@20c.; 2-lb. sections, 16@18c. Extracted, finest grade, 12 1/2c.; dark, 8@9c.
BEESWAX.—20@23c.
Jan. 16. J. M. CLARK & CO., 1409 Fifteenth St.

SAN FRANCISCO.

HONEY.—We quote: White comb, 17@18c.; amber, 12 1/2@15c. Light amber to white extracted, 7 1/2@9c.; amber, dark and candied, 6 1/2@7 1/2c. Market firm and stocks light.
BEESWAX.—22@23c.
Dec. 12. O. B. SMITH & CO., 423 Front St.

We Club the American Bee Journal for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

The American Bee Journal	Price of both.	Club
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 40
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	2 00	1 80
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 00	5 00
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Simmins' Non-Swarming	1 50	1 25
Western World Guide	1 50	1 30
Heddon's book, "Success"	1 50	1 40
A Year among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Iowa Homestead	2 00	1 90
Cabbage and Celery	1 25	1 15
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25



A MACHINE for putting together 1-piece SECTIONS. It will pay for itself in one day's use. No bee-keeper can afford to be without one. **Price, \$2.50.** Send to your Supply Dealer, or to

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LOCKPORT, Niagara Co., N. Y.
Correspondence with SUPPLY DEALERS
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Mention the American Bee Journal.

COMB FOUNDATION MOLDS, \$3.75
Langstroth Size. (See page 23.) Address,
5A1t OLIVER FOSTER, Mt. Vernon, Iowa.

FOR SALE.

21 HORSE-POWER Upright Engine and 22 Boiler, with 3 Pulleys, 2 Belts and 16-foot Shaft. Only in use two seasons. Almost as good as new; with valves, cocks, steam-gauge, 20-foot smoke-stack and Hancock's injector. All completed. Will take \$160 cash, on board the cars at Knoxville, Iowa. Cost when new, \$237.50. For particulars enquire of

J. W. BITTENBENDER,
KNOXVILLE, IOWA.
1D1f
Mention the American Bee Journal.

NOTICE.

BEE-HIVES and SUPPLIES,
SECTIONS, J. Tin Cases and Shipping-Crates, Bee-Smokers and Metal Corners, Honey-Extractors and Honey-Knives.
Send for Price-List.

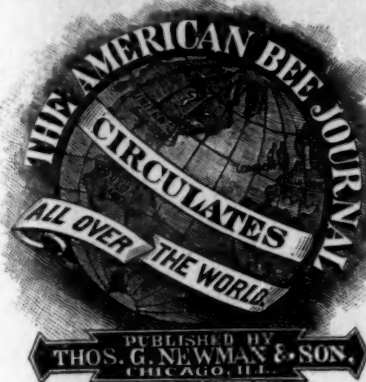
B. J. MILLER & CO.,
NAPPANEE, INDIANA.
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AND OTHERS should write to me for SPECIAL PRICES on BEE-SUPPLIES for this fall and winter.

A heavy Discount allowed.
Address, **A. F. STAUFFER,**
44D1f STERLING, ILLINOIS.

\$16 Buys our DAISY HARNESS, worth at retail \$25. Sent to examine and return at our expense. Catalogue free. CHICAGO HARNESS CO., Wholesale Mfg., 375 Wabash Ave., Chicago, Ill.
1D3t



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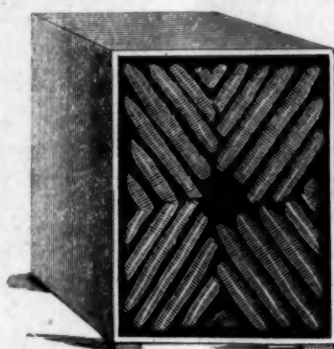
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GLEAMS OF NEWS.

Poisoning the Bees.—Under this heading, on page 803, of our issue for Dec. 21, 1887, we referred to a malicious article in the Atlantic, Iowa, *Messenger*, advising grape-growers to poison the bees in their localities.

It also asserted that "the grape-raising industry has been almost entirely killed out in Ohio, by this nuisance." This we stated was a malicious falsehood, and asserted that the author of it was either ludicrously ignorant, or a willfully malicious slanderer!

Mr. W. M. Bombarger, of Harlan, Iowa, a member of the Iowa Horticultural Society, and a fruit-grower, has written to the Iowa *Homestead*, of Des Moines, a further refutation, stating that the article in the *Messenger* should "receive the condemnation of the intelligent grape and fruit grower of the State which it misrepresents." Mr. Bombarger further says:

That the grape raising industry in Ohio has been killed out by honey-bees or apiarists following their harmless pursuit, I assert is false, whether the assertion be made maliciously or ignorantly, and is proven so by the report of the commissioner of agriculture for 1886, page 116, where, commenting on "The shrinkage of yield in Ohio," he reports as follows: "The shrinkage of grapes in 1881, 1883 and 1885 was due principally to three facts which cannot be separated—rot, mildew, and the effect of the previous severe winter."

On page 117, is a table showing the shrinkage to be from 27,503,000 pounds in 1882 to 9,043,216 pounds in 1885.

As to any such devastation to grape crops made by honey-bees in Illinois, I have not in my annual excursions through horticultural reports, newspapers or bee-papers got the least hint, but have found that grape crops have suffered there of late years from the same cause as in Ohio. I would like very much to have the *Messenger* send me some of these papers and names of parties sustaining the loss.

The third paragraph of the above reads very much to me as if the writer does not know what he is talking about. If bees could pierce the grape skin they would not leave it any more than a child would nine sticks of candy to spoil in a package after taking one from it.

Close observation and repeated experiments show us that bees do not puncture grapes, but help themselves only to such fruit as is burst by weather or over-ripeness or punctured by hornets, wasps, or torn open by poultry and birds. I think if the writer watches closely another season he will find that birds do the work, and after they mangle the bunches the bees suck out the juices from the broken husks which he can make no possible use of.

Since he speaks of rot, it may be *Phoma Wicola* or black-rot, as described on page 115 and 116 of the report above mentioned. It places our portion of the State in the black-rot district.

I regard the honey-bee as one of my very best friends in grape and small fruit culture, and keep a small apiary in my smaller vineyard, which is so located that the path of the bees in the air to their best pasturage during the blossoming season is over my larger vineyard.

I find the bees so valuable in fertilizing fruit bloom that I not only encourage my

neighbors to keep them, but intend doubling my stock in the near future. Their value is greatest whenever we have cool, wet weather during the fruit-bloom, and the winds cannot carry the pollen in dust form from flower to flower.

As to this writer's statement that grapes are worth more than bees, I disagree. I have harvested \$36 worth of honey from 2 colonies, and over \$20 from one colony of bees in one season, and left plenty of honey for wintering. I have generally found an off honey year a good grape year, and *vice versa*; and think grape growing and bee-keeping can be worked profitably together. I harvested nearly 1,000 pounds from my apiary vineyard this year. I found bees on a few bunches that jays and thrush had mangled. One need not be stung by these if after cutting off bunches, and while holding the stem between the thumb and finger he carefully, with grape shears in his other hand, clips off mangled grapes and lets the same fall with the bees thereon upon the ground.

I have had much trouble with jays and brown-thrush destroying my grapes. But since they are so successful in the destruction of injurious insects, I think it inhuman to shoot them. There are many though that do so. I have found that the report of a gun will keep them away; and further, that fire crackers, that are less expensive, if properly used will answer the purpose. It is no trouble to hire small boys, and cheap, too, to walk up and down grape rows, loaded with fruit, and fire them off. If you repeat this several times a day it is all that is necessary. By careful observation of the habits of the birds you can soon tell how often to fire them off. A small patch of grapes near a house can be protected from birds by one's family by the same means. If you have children it will be their delight. And it is well for workmen and pickers in vineyards to carry them, and when they see a bird among the vines to fling and explode a fire cracker beneath it.

A cannon fire cracker exploded in the midst of a flock of jays does pretty effectual work. I would advise our friend above to have his family keep the birds away from his grapes, and not try to poison the bees, that want to take a little pay for pollenizing our flowers, in sipping up the sweet juices of mangled bunches that he can make no possible use of, and which are in that condition because he has not kept birds away from his vines. W. M. BOMBARGER.

Here is the testimony of a fruit-grower in the matter of the value of bees to grapes, which we commend to the careful perusal of all the enemies of bee-culture.

The Honey Market is thus described by R. A. Burnett, of Chicago:

Prices are lower than during November and December, and sales much lighter. It may be that the extreme cold weather of January has checked the demand, but the offerings are becoming heavier; and many commission houses, that during the fall months had no honey, now have several consignments which they are trying to dispose of on easy terms, if they find buyers.

Sorghum.—Now that sorghum is once more attracting the attention of farmers throughout the country, and has this time apparently come to stay, it is well to know that the *Sorghum Hand Book*, a valuable treatise on the cultivation and manufacture of sorghum, may be had free of charge on application to the Blymyer Iron Works Co., Cincinnati, Ohio.

Honey Trusts.—The daily papers are determined to have a "honey trust" somewhere. One day it is said to be formed in New York; then it is Chicago, which is to have it; then Boston. Each city paper palms it off on "the other fellow." The *Boston Record* of Jan. 17, gives this humorous and very unfair sketch of the "trust":

The New York bee-keepers propose to form a "trust," nominally to regulate the size of the comb to be produced, but really to control the market.

When this honey trust is formed there ought to be some way found to get it to boycott glucose, and allow the bees to feed upon clover and other wild flowers. Dame Nature formed a honey "trust" a great many years ago, and the modern bee-keeper has been industriously at work to nullify its main provisions. The honey of the markets to-day bears less resemblance to the white clover honey made by the few colonies of bees it was the fashion for every farmer to keep a half century ago, than oleomargarine does to the butter our mothers produced with the old "dash" churn. It used to be—

How doth the little busy bee
Improve each shining hour,
And gather honey all the day
From every opening flower.

Now, however, under the directions of bee-trusts, that little type of industry is gorged with glucose, and forced to produce an article whose chief resemblance to the rich and delicious comb taken from the stray hives of old is its form.

What a happy day it will be for America when it can be said that the atmosphere of this free and enlightened country is too rarified for trusts. Trusts are the glucose of business.

It would be a happy day for America if the unprincipled "scribblers for the press" found the air too rarified to permit their existence! In lying, and writing "scientific pleasantries," they seem to revel, no matter what pursuit is injured, or who may be ruined!

There is no truth in the "Honey Trust" matter, and we trust that these scribblers will now turn their villainous attention to something else. If they must write such stuff, give some other pursuit a twirl! and *Give us a Rest!*

Krainer Bees.—S. W. Morrison, M. D., Oxford, Pa., sends us the following "History of Krainer Bees in the United States:—"

I find that Carniolans were first known here as "Krainer bees," and that in 1879, a consignment of twelve queens labeled "Cyprians," reached A. J. King in New York, for some person with a German name in Iowa. These were not Cyprians, but Carniolans, as the shipper afterward confessed; the Iowa party probably thinks to this day he had Cyprians. I would like to have his name and address. Does any one know of an earlier importation of Krainer or Carniolan bees?

A Modern Bee-Farm, and its Economic Management; showing how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man. By S. Simmins. For sale at this office. Price, \$1.

QUERIES AND REPLIES.

PROTECTING HIVES FROM HEAT, AND COOL NIGHTS.

Written for the American Bee Journal

Query 513.—Will an outer shell, or cap, to protect the section-case from the sun and cool nights, pay for the extra expense and labor, with a section-case made of $\frac{3}{4}$ -inch lumber?—New York.

Yes.—J. P. H. BROWN.

No.—A. B. MASON.

Yes.—M. MAHIN.

No.—EUGENE SECOR.

Yes.—J. M. HAMBAUGH.

No. I have used such thin cases, and the bees worked well in them; but perhaps the nights here are not as cool as in New York.—G. L. TINKER.

I think not. I consider it a waste of material to make them.—J. M. SHUCK.

I have never been able to discover any advantage in such a shell.—R. L. TAYLOR.

No. A case made of $\frac{3}{4}$ -inch lumber, and painted, is all that is necessary. Use shade-boards in hot weather.—C. H. DIBBERN.

For the purpose mentioned, no. But you will need a cap before it is desirable to put the case on, and frequently after it is taken off.—MRS. L. HARRISON.

I think it might; but I prefer a super made of $\frac{3}{4}$ -inch lumber.—C. C. MILLER.

I think it will; at least it pays me in this locality to use an outer case to protect the sections.—H. D. CUTTING.

Yes; for you can use it for years, and it will be of advantage when the sections are taken away for feeding or for packing absorbents.—DADANT & SON.

I think it will pay well. I should prefer thicker lumber in the section-cases, if no outer case was to be used.—J. E. POND.

It might be an advantage in cool nights, but it would be no protection against the sun.—W. Z. HUTCHINSON.

I decidedly think not. Such an arrangement is in the way of a handy tiering-up system, and really does no good if it was free from other objections.—G. W. DEMAREE.

I doubt if it is of any use at all. I want no such cap. Just the section-case covered with a plain board.—A. J. COOK.

I should say not. I do not know just the climate of all parts of New

York, but in this locality, latitude 42° (no mountains), we use and prefer from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch, and an outer cap is a positive injury, as we know from repeated experiments. A shade-board is always worth ten times its cost of construction and manipulation.—JAMES HEDDON.

I think so, but many do not seem to think that way. As I use wide frames, I consider a cap a necessity.—G. M. DOOLITTLE.

A plain board for shade against the rays of the sun would be preferable. It is very doubtful if the "shell" would pay for the cost.—THE EDITOR.

DIMENSIONS OF HIVE AND NUMBER OF FRAMES.

Written for the American Bee Journal

Query 514.—1. What number of square inches of comb-surface should there be in a hive? 2. What distance should brood-frames be from centre to centre, the end pieces being $\frac{1}{2}$ of an inch, and the top-bars 1 inch? 3. What are the inside dimensions of the frame you use? 4. What number of frames in each hive do you use?—Maryland.

1. That depends upon many circumstances. 2. One and $\frac{1}{2}$ inches.—W. Z. HUTCHINSON.

1. Not less than 2,500. 2. They will work well if but 1 $\frac{1}{2}$ inches. 3. Eight and $\frac{1}{2}$ by 16 $\frac{1}{2}$ inches. 4. Eight, but prefer ten.—A. B. MASON.

2. One and $\frac{1}{2}$ inches. 3. The standard Langstroth frame. 4. Eight for comb honey.—MRS. L. HARRISON.

2. From 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$ from centre to centre. 3. Nine by 13 $\frac{1}{2}$ inches. 4. Nine frames.—H. D. CUTTING.

1. From 1,500 to 1,800. 2. As near 17-16 inches as you can get them. 3. Inside, 16 $\frac{1}{2}$ x8 $\frac{1}{2}$ inches. 4. Eight to 12, depending.—J. P. H. BROWN.

1. A hive too large one season may be too small the next. 2. A little less than 1 $\frac{1}{2}$ inches. 3. Nine and $\frac{1}{2}$ by 11 $\frac{1}{2}$ inches. 4. Eleven usually; but I have hives as small as 7, and as large as 15.—M. MAHIN.

1. That will depend much upon the construction of the hive, and the manner in which it is to be used. 2. One and $\frac{1}{2}$ inches. 3. The brood-frame I shall use hereafter has about the same capacity as the Gallup frame, but it is not so deep. 4. Eight frames.—G. L. TINKER.

1. It depends upon circumstances, and what you are working for. 2. One and $\frac{1}{2}$ inches, or slightly less. 3. I use several sizes, but prefer the Langstroth frame. 4. For comb honey and cellar wintering, I prefer 8 frames, and often contract the latter to 6, when hiving prime swarms.—EUGENE SECOR.

1. From 2,880 to 3,000, if you measure both sides. We use still larger hives, and prefer them. 2. We prefer 1 $\frac{1}{2}$ inches. 3. Ten and $\frac{1}{2}$ by 18 inches, old Quinby style. 4. Nine frames and two division-boards.—DADANT & SON.

I use the 8-frame Langstroth, and the 12-frame Gallup hives. The distance from the centre may vary a little—about 1 $\frac{1}{2}$ inches. I use break-joint honey-boards. I have a few of the new Heddon hives.—A. J. COOK.

I use myself, and consider the ordinary Langstroth hive 14 $\frac{1}{2}$ inches wide, inside, and holding 10 frames evenly spaced. The inside dimensions of my frames are 8 $\frac{1}{2}$ x17, outside 17 $\frac{1}{2}$ x9 $\frac{1}{2}$. The top-bar is 19 $\frac{1}{2}$ inches long outside.—J. E. POND.

1. A hive should be capable of holding from 8 to 10 square feet of comb. 2. One and $\frac{1}{2}$ inches, or a little less, without reference to the size of the top-bars and end pieces. 3. I use frames 17 $\frac{1}{2}$ x4 $\frac{1}{2}$ inches, inside, and others 16 $\frac{1}{2}$ x8 $\frac{1}{2}$ inside. 4. Sixteen of the former and 8 of the latter.—R. L. TAYLOR.

1. Perhaps from 10 to 16 square feet, varying at different times of the year. 2. One and $\frac{1}{2}$ to 1 $\frac{3}{4}$; no matter about the width of the top or end-bar. 3. About 17 $\frac{1}{2}$ x8 $\frac{1}{2}$ inches, but I should rather have the Standard Langstroth hive. 4. From 4 to 8, according to the time.—C. C. MILLER.

After long experience and many experiments, I have adopted a hive containing about 1,700 cubic inches, and think that about right for producing comb honey. 2. Frames should be 1 $\frac{1}{2}$ inches apart from centre to centre. 3. The inside, or comb measure of frames in my new hive, is 6x20 inches, and I use 10 frames to a hive.—C. H. DIBBERN.

1. I use a brood-chamber containing 1,500 cubic inches, or near that. 2. I use them 1 $\frac{1}{2}$ inches apart. 3. Ten and $\frac{1}{2}$ by 10 $\frac{1}{2}$ inches square. 4. Nine, except with new swarms; with these I use only from 5 to 6.—G. M. DOOLITTLE.

1. I use 10-frame Simplicity hives at my home apiary. Single body 2,600 cubic inches. In my apiary abroad, I use the 10-frame Quinby, *a la* Dadant, hives. Single body 3,600 cubic inches. 2. Frames spaced 1 $\frac{1}{2}$ inches from centre to centre. Inside dimensions of the Simplicity frame, 16 $\frac{1}{2}$ x8 inches. Of the Quinby frame, 17 $\frac{1}{2}$ x10 $\frac{1}{2}$ inches. All of my frames are cut $\frac{1}{4}$ of an inch thick. In the Quinby, the dimensions are made for eleven frames, a division-board to occupy the space of one.—J. M. HAMBAUGH.

1. The Standard Langstroth frame contains 140 square inches of comb. Ten frames would give 1,400 square inches of comb. By employing divi-

sion-boards you can use from 1 to 10 frames in the hive to suit the size of the colony. 2. One and $\frac{1}{2}$ from centre to centre of the top-bars. 3. Frames are gauged from the outside, to make them uniform in size. I use the Standard Langstroth frame, which is $17\frac{1}{2} \times 9\frac{1}{2}$ inches, outside measurement. 4. Just as many frames as the size and strength of the colony demands; usually ten in the heated part of the season—G. W. DEMAREE.

My frames are of the Langstroth size, and present about 288 square inches of comb surface each. Eight frames to the hive gives me 2,264 square inches. Before storage begins I slip in another frame, making about 2,500 square inches of comb surface. This extra frame increases the strength of the colony and lessens the empty space in the brood-chamber at the same time.—J. M. SHUCK.

1. We have used extensively and prefer a solid brood-chamber of the following capacity and shape: Ten inches deep, $11\frac{1}{2}$ inches wide, and $18\frac{1}{2}$ inches long, inside measurement. In this we use 8 Standard Langstroth combs in suspended frames. This size and shape is not always the best for all purposes, and at all times; but as a compromise for all purposes and all times, we would not change it in the least. In my patented divisible brood-chamber hive new functions and results appear, and another capacity is preferable. We keep the length and width of the frames the same, and the combs the same distance from centre to centre. The combs are little longer, however, because the frames are tight-fitting in the cases. As the brood-chamber is horizontally divisible, and the halves practically interchangeable, there are two sets of 8 frames, each frame containing a comb 5 inches deep, and this brood-chamber is of the capacity of the 10-frame Langstroth hive, and from it we realize the advantages of both large and small, and shallow and deep brood-chambers. Now, our friend can make figures which will make my answer complete.—JAMES HEDDON.

1. The "times and seasons" control the amount of comb surface in a well regulated hive. 2. The space between the brood-frames should be a little less than $1\frac{1}{2}$ inches from centre to centre. 3. I have used several sizes and kinds, but prefer the Standard Langstroth hive. 4. It contains 10 frames, but their use depends upon many conditions and circumstances.—THE EDITOR.

Look Over last year's numbers of the BEE JOURNAL, and if any are missing, send for them at once, as we have but few left now, and they are daily becoming less.

BEE CONVENTIONS.

OHIO APIARISTS.

Fifth Annual Convention of the Ohio Bee-Keepers.

Written for the American Bee Journal
BY FRANK A. EATON.

The convention was held at Columbus, O., on Jan. 10 and 11, 1888, and opened at 9 a.m., President E. R. Root in the chair.

After the routine business of reading the report of the last meeting, and the reports of the officers, the first topic was announced for discussion, viz:

Bee-Conventions, How to Make them a Success, and their Value to Bee-Keepers.

A. I. Root—It pays to hold and attend conventions. It has been hard work to get me out. I owe a debt of gratitude to Prof. Cook and others, for getting me started; it does me good, and I am thankful that I have been induced to attend conventions. I learned of a new 5-cent comb-honey package at Manistee, by going to the Michigan convention, and getting out among folks last month. He spoke of the joint meeting of the horticulturists and bee-keepers of Michigan; of a two hours' address by a Professor—but when it came to the bee-keepers' time, they were up and alive, speaking briefly and to the point, and they had lots of intelligent fun.

Dr. Mason—It does not pay me in dollars and cents, for we can get the best thoughts and the valuable suggestions of our best men who attend the conventions, in the published reports of the meetings, but it pays socially.

Dr. Besse—It pays me by learning of new appliances, getting new ideas, mental culture, etc. I have got my pay already, and the convention has only just started.

H. R. Boardman—It pays the specialist financially, and always pays all socially.

N. Hutches—It has paid me well. I have kept bees 49 years, but I used to keep them in the old "box" and "gum" hives, but from attending conventions I have learned of bee-periodicals, and all that I know about keeping bees in the right way. I have 40 colonies in good condition; three years ago I cleared \$300.

Dr. Tinker—I feel that it pays, and that these gatherings are of value and interest to the bee-keeping fraternity.

The general impression was, that it paid to attend conventions, and that those depending upon the published reports lost a great deal.

Dr. G. L. Tinker, of New Philadelphia, O., then read the following essay:

The Sectional Brood-Chamber, and its Advantages.

If it had been announced that I was to discuss the advantages of sectional hives, we should be dealing with a practical subject, one with which every bee-keeper in the land should be familiar. But the subject in hand is one in sore need of discussion, since, for some cause, very little has appeared in our bee-periodicals to enlighten us concerning it.

My first season's experience with sectional brood-chambers seemed very favorable. It happened to be an extraordinary season with us, and any hive with good management would have made a fair record. The past season was not a good one, and the defects of the new hive were apparent in many things. As compared with the Simplicity hives, of which I had seven in use, they were a marked failure. The bees in the Simplicity hives of my neighbors also did better. They not only had more bees all through the season, but had more surplus, and stored enough for winter, while the bees in the sectional brood-chambers had to be fed for winter.

I am reluctantly compelled to make this confession, partly because of my own disappointment in these hives, and partly because of the kindly feeling I entertained for the inventor.

I will give in detail my experience with the sectional brood-chamber, and my reasons for abandoning it. In the first place, the horizontal half of a brood-chamber is too small for a swarm, too small for a colony in the fall, and too small for wintering. It is too small for a swarm, since, with a queen-excluding honey-board, the bees will store much pollen in the surplus sections, and soon dwindle down to the size of a good nucleus. It is too small in the fall, since the bees are limited in space for stores and brood, and become too weak in numbers to winter to the best advantage. It is too small for wintering, since it will not contain sufficient stores to winter the colony and make a respectable start in brood-rearing in the spring.

Thus it will be seen that one of the cases of such a hive, by itself, is of no value in the hands of the practical honey-producer. It is required that both parts of the brood-chamber be used together to make any thing like a success of it. But if they are so used, the following difficulties arise: In the spring, the colony breeds up slowly, and without much attention will not get ready for the harvest. When at last it does get ready, if the honey-flow is extra good, the bees proceed to fill up the horizontal space

with brace-combs, and fill in with honey. The bee-keeper now thinks of interchanging the sections and bringing the brood to the top, but finds a strong lever is required to pry the hives apart. He quickly finds he can neither interchange the parts nor close the hives without killing hundreds of bees. They pile upon the broken surfaces, and a smoker is required in order to cut away the honey.

If robbers are troublesome, it becomes a serious matter, and the bee-keeper soon gives up the interchanging business as a bad job. It seems that bees do not build brace-combs to the same extent between whole brood-chambers, tiered one upon the other, as between these shallow cases. After all, there is no advantage from interchanging the sectional parts, since the bees will carry the brood upward and breed just as rapidly where no interchanging is done, as where it is. As the season advances, the bees put all the honey, or nearly all, in the upper case, so that the whole brood-chamber is required for winter.

The "shake-out" function is a good deal easier to talk about than to carry out in practice. With black bees and a little smoking it may be done, as it does not take much shaking to get them out. With Italians, Syrians and Cyprians, it is a very difficult matter, and the bee-keeper is easily persuaded not to try it again.

Finally, sectional brood-chambers are objectionable because of the extra expense of so much rigging for the amount of honey they contain, and there are no advantages to compensate for the extra cost.

The sectional, or storifying hive, will be the hive of the future. By this I do not mean a hive with a sectional brood-chamber, for one of the parts of such a hive is only half as large as the standard brood-chamber, whose capacity, as fixed by Fathers Langstroth and Quinby, is 2,000 cubic inches of space, which will contain, in suspended brood-frames, about 1,350 square inches of comb. I have already shown that the half of such a brood-chamber is too small to be of any practical use by itself. Nothing less than a capacity for 800 square inches of brood-comb is deserving the name of brood-chamber, and such a one may be successfully used. I mean instead, a hive made up of two, three, or more brood-chambers tiered up one upon the other, or, as our English brethren term it, "storified." As this latter term is more elegant and expressive, I shall use it.

"Storifying hives" have many advantages over other kinds of hives. I have no doubt that the popularity of the Simplicity hives is due more to

this one feature than any other. We have had them in use in this country for many years, but it is only within the last few years that we have fully appreciated this admirable function. It is highly significant that our English friends are placing so much stress upon this point. Of late they have given no premiums to any but storifying hives.

In this connection I have but one suggestion to make, and I have done. It is, that, if the Simplicity hives were cut down to take a 7-inch brood-chamber, it would be nearly perfect as a storifying hive. It would then be just right for a swarm with a queen-excluding honey-board; it would be just right for wintering, and it could be "storified" at any time in the working season, to make a large hive according to the necessities of the bee-keeper.

DR. G. L. TINKER.

H. R. Boardman—I have made and used sections and supers 5 inches deep before I ever heard of such things.

A. I. Root spoke of queens laying in a circle, and thought that deeper frames like the Langstroth, were more desirable than sectional ones, on that account.

H. R. Boardman—I have known a cross-bar in the centre of a comb, to stop the queen from laying on the opposite side. I cannot look favorably upon the sectional hive; perhaps from prejudice, but I think not.

The Secretary—I used a sectional hive last season, but I find enough disadvantages to deter me from changing the present mode for it.

E. R. Root—What about the thumb-screws? Is there not a difficulty in the manipulation of frames?

Dr. Tinker—I find no trouble to manipulate Heddon's frames, after getting the first one out; but, frequently, that is quite difficult.

Dr. Mason—I do not think that the sectional brood-chamber is a practical success. I like to have my frames so that I can lift them out and look at them. What are the advantages of reversing?

Dr. Tinker—The only advantage of reversing, is to get the frames filled with comb; if not filled, queen-cells will be built at the bottom, during swarming time; but if filled, they will be built along the centre.

E. R. Root—I think it quite an advantage to have full frames of comb.

A. S. Goodrich—I have had experience with full frames; used wired frames, and let the foundation come to the bottom-bar.

H. R. Boardman—Comb fastened at the sides, is sufficient for extracting.

A. S. Goodrich—If three sides fastened, make the combs quite secure,

will not four sides fastened make them more so?

Dr. Tinker—I like to have the combs fastened to the bottom-bar nearly the whole length, leaving holes enough for the bees to crawl through.

G. R. Morris—When the foundation is fastened to the bottom-bar, the bees cut it out.

H. R. Boardman—I do not want combs fastened to the bottom-bar, as the combs will be sure to sag or bulge just above the bar. Reversing the brood-chamber is entirely impracticable. In reversing in hot weather the comb would be soft and drop over.

Dr. Tinker—I can reverse brood-chambers in April, and have the frames filled without danger of falling over.

Henry Bates—I want the combs down to the bottom-bars, and no wires.

Dr. Mason—Do you run for comb honey?

Henry Bates—Yes.

Dr. Mason—You have no experience then in handling combs?

Adjourned to 1:30 p.m.

The afternoon session was called to order by President Root, and the topic for discussion was,

Bee-Keeping in Connection with other Pursuits.

Frank A. Eaton led the discussion as follows:

Bee-keeping as a pursuit is of such magnitude, and requires so much attention and thought, that to couple it successfully with other avocations, requires rare business qualities and good judgment. The question as stated leaves it open, as to whether bee-keeping shall have the dignity of business, or be simply an adjunct, or a recreation. I take it that the question this convention chooses to consider is the keeping of bees in such numbers as to raise it above a mere play thing.

To keep bees at all, means time and work, and as the number of colonies increase, so must the other business be neglected, and those professions and callings which afford and give the most time and leisure are the best suited to go hand in hand with bee-keeping.

Perhaps the greatest and best idea of how bee-keeping can be carried on in connection with another pursuit would be to cite my own case. I manage from 75 to 150 colonies of bees each season; they require my entire time and attention from March until October. I prepare my hives, sections, and in fact make all preparations for the busy season during March and April, as I ship bees and queens, beginning by May 1.

I also run my apiary for both comb and extracted honey (principally

comb), and in that my time is most busily occupied until the first of October. Then I aim to get my honey nearly all marketed by the first or middle of November.

The bees have now occupied my entire time from 8 to 8½ months of the year, leaving from 3½ to 4 months that bee-keeping alone cannot fill.

Having been in the music business prior to my keeping bees, it gave me considerable experience in this line, so that at the close of the bee and honey season, I lay in a stock of pianos and organs, on consignment, for the holiday trade. I realize several hundred dollars each season from those odd months, and thereby fill in the year. The supply business goes well with bee-keeping at all times of the year.

Small fruit and market gardening are well suited to bee-keeping, but as the care of each come about the same time, help will be required. However, the benefit bees do to the fruit-bloom, in the way of fertilization, more than pays for any extra help needed.

Another pursuit that is generally conceded to go hand in hand with bee-keeping, is farming, but I am of the opinion that this is not true. I do not believe that any man can be a successful bee-keeper and farmer at the same time, as the requirements of each are numerous, and require the most care and attention at the same time. If one is cared for, the other is sure to be neglected.

Dr. Mason—When I farmed I made a success of both.

A. I. Root—It is not best to put all your eggs in one basket. I recollect how a man once wrote to me for prices of 40 colonies of bees. I advised him to buy only 2 or 3; and, better still, only a nucleus, and stick to his other business. He accepted the advice, and finally made a success of bee-keeping.

C. E. Jones—I cannot quit farming nor keeping bees; they go well together. I get everything ready for the bees in the winter. There is more profit in my bees than in my farm, but I want both.

A. S. Goodrich—I made a success of farming, but failed with bees, except to get honey enough for home use.

N. Hutches—I made a success with the bees on a 200-acre farm. I would rather be a bee-keeper than a United States Senator.

A. I. Root—If a man is enthusiastic enough, many can make a success of both.

A. Benedict—I have made a success of bee-keeping and general farming for 45 years.

Dr. Mason—I have a neighbor that has 100 colonies of bees and a good farm, and makes a financial success of both.

S. R. Morris—I started in keeping bees and farming, but made a failure of it until I had help; now I make a success of both.

S. Hains—I farm and keep from 50 to 100 colonies of bees. I want both. The best my bees have ever done was to give me 150 pounds of extracted honey per colony.

The next topic was entitled, "Bee-keeping as an exclusive pursuit," and an essay by Dr. C. C. Miller was read.

H. R. Boardman—If a man puts his whole soul into bee-keeping, he will succeed, but he must not divide his soul up into two pursuits.

Dr. Mason—I differ with Mr. Boardman.

H. R. Boardman—By putting my whole energy into my business the past year, I succeeded in getting a fair crop; had I done anything else in connection with bees, I would have failed.

A. I. Root—I believe that if a man has his bees in first-class condition, and makes an effort by sowing, he can get a good crop in any season.

Bee-Pasturage.

C. E. Jones—It will pay to keep 100 acres of land to farm, and 100 colonies of bees, and sow for honey production. I have sown two acres of sweet clover on good land and made it pay.

H. R. Boardman—I have been in the habit of furnishing my neighbors Alsike clover seed at cost. They make a success with it, as a grass crop. In this way I have succeeded in getting over 200 acres in my neighborhood.

S. R. Morris—I furnish Alsike in the same way.

A. S. Goodrich—I have the hay to sell to my neighbors when they get out, and they sow the seed.

Dr. Mason—I think the Chapman honey-plant is superior to any other, and will pay much better than sweet clover. The honey tastes and looks very much like linden.

A. I. Root—The Chapman honey-plant yields day and night, and is a pure sweet; but I doubt if it pays to sow 2 or 3 acres of good land with any plant that is good for honey only. I think, however, it would be a good plan to have the commissioner of agriculture distribute the seed among bee-keepers.

C. E. Jones—Buckwheat pays, but must be sown at the right time and in the right way.

On being questioned by Dr. Mason, he said, sow in April on good, well-prepared soil, and roll well. It blossoms with white clover, and does not injure clover honey. It gets ripe, and should be sown again about June 20. I get two crops of honey and seed on the same ground in one season.

Dr. Mason—Two years ago there was buckwheat near my apiary. The

bees mixed the buckwheat with my white honey, and spoiled the whole crop.

C. Culp—My father had his neighbors sow considerable buckwheat one season, and got a good yield; but the honey was dark and strong, and did not sell well.

The Election of Officers,

for the ensuing year, resulted as follows: President, Ernest R. Root; Vice-President, H. R. Boardman; Secretary and Treasurer, Frank A. Eaton.

On motion a cordial invitation was extended to the North American Bee-Keepers' Society to change the location of its next meeting to Columbus, Ohio, during the Ohio State Centennial Exposition between Sep. 4 and Oct. 19, 1888.

It was voted that when this Convention adjourns it shall be, to meet at the same time and place, and also with the next meeting of the N. A. B. K. Society.

EVENING SESSION.

Dr. H. Besse opened the next topic on "Wood vs. Tin Separators; is it profitable to dispense with either?"

A. I. Root—By fastening foundation at both top and bottom, you can dispense with separators.

H. R. Boardman—I tried some of the Heddon cases without separators and failed; then I tried broad frames, with separators, and succeeded. The loss of time in looking after the sections, without separators, amounts to more than the loss of honey with them. I prefer wooden ones. I leave my honey on until the flow is over. I very much favor saving and using the partly-filled sections of the previous year.

Dr. Tinker—I find that the bees will fill and finish partly-filled sections from the previous year. Separators are a hinderance to sections without side openings, but I want separators with side-opening sections.

Mr. Loomis, an editor, was present, and being called upon, gave a brief talk, and asked as a novice, "Must I try all these things and find out?" Several in reply said, No; consult good bee-keepers, and read bee-periodicals.

Question-Box.

1. Which of the following methods of working bees are the most profitable; selling queens, bees, or producing comb or extracted honey? A. I. Root—Whichever the market demands, or all four, if you have a demand. It would be impossible to decide definitely.

2. How can swarming be best controlled, when working for comb honey alone? H. R. Boardman—By shaking bees into empty brood-frames with sections.

3. Which is the best mode of ripening extracted honey; artificially or with the bees? Dr. Mason—Leave it with the bees.

4. How old may queens be kept and remain profitable? A. I. Root—Sometimes four years, but not often. A. Benedict—The more space the queen uses the shorter time she will live.

5. Is it best to assist the bees in cleaning up their hives in the spring, or should they be left to do their own work? Frank A. Eaton—Help them, if they need help.

6. Give a remedy for spring dwindling. H. R. Boardman—Winter properly.

7. Should colonies wintered in cellars be put back on the same location they occupied in the previous season? A. Benedict—Set them where they were the previous season. Dr. Besse—Set them anywhere, at night. H. R. Boardman—You cannot tell how the weather may be the following day. If set out at night it might prove disastrously. Dr. Mason—Set them out anywhere. A. S. Goodrich—Set them out where they were. I lost 30 colonies by setting them out in a haphazard way. S. R. Morris—Put them where they were.

8. Which is best, to hive new swarms on full frames of foundation, drawn out comb, or starters only? Dr. Mason—On starters, with surplus above, and a queen-excluding honey-board.

9. Can worker bees be reared in drone comb? A. I. Root—Yes, in some instances.

10. Has the queen full control of the fertilization of the egg? Dr. Tinker—Yes.

11. Is the progeny of a drone-laying queen of any value as drones? A. I. Root—Yes. Dr. Tinker—No. A. Benedict—No.

12. What should be done with colonies that get damp when wintered in the cellar? A. I. Root—Let them alone. Dr. Mason—Give warmth and ventilation.

A. S. Goodrich asked, what ails my bees? Half of them are dead, and the balance will die as soon as they get strength enough (laughter). I fed them up for winter on granulated sugar syrup, with a little tartaric acid in it. A. I. Root—What sort of vessel did you mix it in? A. S. Goodrich—Galvanized iron. A. I. Root—They were killed by poison from the action of the acid on the zinc. Adjourned.

WEDNESDAY MORNING SESSION.

The first topic was, "Extracted honey; its production, and the best method of marketing it," by Dr. A. B. Mason.

The Doctor having urged in his essay the putting of nothing but the best extracted honey on the market, A. I.

Root asked him what he would do with the bad honey? He replied, make it into vinegar.

H. R. Boardman—I started in with producing extracted honey, but had to conform to my trade.

E. R. Root—Can candied honey be melted and remain as good as before? Dr. Mason—Yes; but great care must be exercised. Messrs. Boardman and Morris thought not, but Frank Eaton and others agreed with Dr. Mason.

An essay by Chas. F. Muth was then read on, "The commission man and his relation to the honey-producer, as affecting the sale and price of honey."

A. I. Root—We cannot spare the middle-man, especially such a broad-hearted man as C. F. Muth.

C. E. Jones—The middle-men are all right; the trouble lies with the producer.

The association passed a vote of thanks to Dr. C. C. Miller and Chas. F. Muth for the valuable papers they furnished in their absence.

WEDNESDAY AFTERNOON SESSION.

H. R. Boardman then read an essay on "In-door vs. out-door wintering of bees, and the advantage of the former."

S. R. Morris asked Mr. Boardman if it is advisable to set bees out during the winter for a flight?

H. R. Boardman—Sometimes, but the bee-keeper must be the judge.

S. R. Morris—Will they dwindle in the spring worse when wintered in the cellar? Mr. Boardman—Not as badly.

FRANK A. EATON, Sec.

[As the essays are lengthy, they will be published hereafter as our space will permit.—ED.]

NEBRASKA.

Report of the Proceedings of the Nebraska Convention.

Written for the American Bee Journal
BY J. N. HEATER.

The bee-keepers of Nebraska assembled in annual convention Jan. 11 1888, at Lincoln, Nebr. The convention was called to order at 3 p.m. by the President, R. R. Ryan, who presided throughout the session with H. N. Patterson as Secretary. Mr. Emerson T. Abbott, of St. Joe, Mo., was made an honorary member.

Messrs. Heater and Tower were appointed a committee to examine the reports of the Treasurer and Secretary, after which the President made an address upon the aims and needs of the bee-keepers of the State.

The election of officers was postponed until evening.

Messrs. Muir, Johnson and Heater were appointed a committee to consult with the State Horticultural Society to see if arrangements could be made for holding a joint session of a half day with that society.

The work of the meeting was then given up to asking and answering questions. Under this head the following questions were fully discussed: Is there such a thing as a high-bred bee? What is the best manner of uniting weak colonies for wintering? Do the moths ever trouble the Italian bees? Is there any rule or sign by which you can tell when bees are robbing each other? What is foul brood? How long will two queens work together in the same hive? After these discussions, the convention then adjourned until 7 p.m.

EVENING SESSION.

"What are the essential points in locating an apiary?" was discussed by J. S. Hodges and J. L. Blanchard.

The speakers favored a southeast slope located near or in a timber, with water near at hand, and plenty of honey resources in the flight of the bees.

This question was then opened to all for discussion, and a number of the members gave their experience and their preference of location. There was a diversity of opinion, some favoring the fronting of the hives to the east, and others to the south. The general opinion was, that an orchard with trees planted about 8 feet apart, and kept well cut back, was the best location.

E. Tower made a few remarks upon the question: "How much comb foundation, if any, should be used?" He said there was no question as to the benefit of the use of comb foundation. The principal question, and the one upon which there was the most division, was that of what quantity should be used. Mr. Tower thought that all beginners should use full sheets.

Mr. Trester said it was used by bee-keepers because it was cheaper than allowing the bees to make it. He was in favor of using all that could be put in the hives, as was also Mr. Heater, who recommended the use of heavy foundation, thus supplying the whole demand, and relieving the bees of all work in secreting this wax.

The committee appointed to confer with the Horticultural Society in relation to holding a joint meeting with the bee-keepers, reported that the Horticultural Society had gladly accepted the invitation, and would be present at the afternoon session to-morrow, to hear the paper of Prof. Bessey, on "Honey Plants."

Adjourned until 9 a.m.

SECOND DAY.

The convention was called to order at 9 a.m., and after the usual business, a communication was read upon a "National Organization," from John Aspinwall, Barrytown, N. Y.

"How does bee-keeping pay compared with other occupations?" was the subject of general discussion among the members. It was the general opinion that bee-culture could be made profitable if the proper means were adopted.

J. N. Heater read a communication from E. M. Hayhurst, of Kansas City, upon "Results of spring work with bees." This closed the morning session.

AFTERNOON SESSION.

A joint meeting of the bee-keepers and the Horticultural Society was held in the afternoon. Prof. Charles E. Bessey, Ph. D., professor of botany at the university of Nebraska, read an essay upon "Some honey-plants of Nebraska," in which he said:

If we carefully examine the structure of a nectar-bearing flower, we find invariably that the nectar glands have a definite position in relation to the organs of fertilization. While there is an almost infinite variety in the details, yet it may be stated in a general way that the nectar is always so placed that insects in gathering it are compelled to come in contact with one or more of the organs of fertilization. The nectar is the bait by means of which insects are made to visit the flowers, in order that the pollen may be carried from plant to plant. This is its only use, as has been abundantly proved by wide observation of many careful students of this department of nature.

Now, inasmuch as all flowers have to be fertilized, it might be assumed that all flowers must have nectar. Such, however, is by no means the case. If we examine carefully the flowers of plants, we find that a great many have the pollen carried from plant to plant by the wind. Such are said to be wind fertilizers, and observation has shown that in all instances they are destitute of nectar, or nearly so. Again, there are some plants which have such a structure that the pollen of its stamens comes easily into contact with their stigma, and thus fertilization is effected without the intervention of any outside agents. Such are called self-fertilized flowers, and here again the nectar is absent. Finally we have the plants whose numbers can only be expressed by tens of thousands, in which the structure is such that fertilization can only be secured by the intervention of insects, or in some cases of nectar-loving birds, as the humming birds.

In these plants which depend upon insects for carrying the pollen from flower to flower, it is found that some parts of the floral mechanism is peculiarly adapted for the purpose. Generally there are such structures as compel the insect to enter the flower in a particular way, and thus it touches the pollen-sacs with some part of its body, and carries some of the pollen to the next flower it visits. This it does while trying to secure the honey, and the contrivances to secure this result in different plants are among the most remarkable and interesting in the whole vegetable kingdom.

Rev. E. T. Abbott, of St. Joe, followed Prof. Bessey with a few practical remarks upon bee-culture and honey plants.

Mrs. Heater read a very concise and carefully-prepared essay on "How to prepare honey for display and the market," for which the association very gracefully passed resolutions of thanks. The fact was then brought out that Nebraska honey commanded 2 cents more per pound than honey produced in Iowa and other eastern States.

The question whether honey should be judged from appearance or taste, was discussed at some length, and was compromised by the decision that both appearance and taste should be taken into consideration.

"Fall Breeding" was the subject of a very interesting paper by Mr. Heater. The success of bee-culture depends largely upon the fall breeding. Mr. Heater advised feeding in the fall, but not later than the latter part of September. The young bees should have their cleansing flight before going into winter quarters.

This subject was discussed in its different phases, and the meeting adjourned until evening.

EVENING SESSION.

Only a few members braved the storm and attended the meeting. These did not lack enthusiasm, however, and entered heartily into the discussions. The questions which were brought forward were: "Can the swarming impulse be controlled; if so, how?" and "Which is best, to divide for increase or natural swarming?"

The following officers were elected for the ensuing two years: President, M. L. Trester; Vice-President, R. V. Muir; Secretary, J. N. Heater; Treasurer, T. Johnson.

THIRD DAY.

The closing session was mainly occupied by the reading of a very interesting essay by Rev. E. T. Abbott, of St. Joseph, Mo., on the "Honey Bee; its anatomy, the products of its operations, and its relations to flowers and plants." [This essay will be pub-

lished as soon as we can find room for it.—Ed.]

The committee on examination of the sample of honey brought in by a citizen of Lincoln, reported as follows:

"Your committee, to whom the jar of California honey put up by J. H. McDermott, of Chicago, was referred, pronounced it in their opinion impure and unfit for family use; and think that the man should meet with public condemnation for putting such an article on the market as honey."

The meeting then passed resolutions of thanks to its retiring officers, and to Mrs. J. N. Heater, Prof. Bessey, and Rev. E. T. Abbott, and extended to the latter a special invitation to meet with the society at their next annual convention.

Adjourned to meet at Lincoln in the second week in January, 1889.

J. N. HEATER, Sec.

VERMONT.

Convention held at Burlington, on Jan. 18 and 19, 1888.

Written for the American Bee Journal
BY MARCIA A. DOUGLAS.

According to programme, the convention was opened on Wednesday afternoon; the President, P. E. Abbey, in the chair.

After reading the minutes of the last annual meeting, the Constitution, etc., the convention listened to a poem entitled "Vermont Bees," by F. H. Wheatley, of St. Johnsbury, Vt., which was followed by a discussion, the general opinion being that there are two races of what are called "black bees."

One member related a visit to a neighbor's apiary who complained that a part of his bees were not good honey gatherers, but were lively and cross, making it difficult to manage them, while others in the same yard were of a more peaceable disposition, and better workers. On examination it was found that the former were small black bees, while the latter were the brown German bees.

Mr. A. E. Manum was asked what he thought of the Holy Land and Cyprian bees. He said he was favorably impressed with the Holy Land variety, but not with the Cyprians, because they are too cross.

One member stated that in one season his Italians produced 30 pounds per colony more than the blacks; and the stings were more numerous from black bees.

Mr. Manum was asked if he had Italians that would work on red clover. He replied that he had, and gave some proofs in his experience; he thought that they would not work as well in

some seasons as others. He was asked if he did not think that the tubes of the clover blossom was shorter in some seasons and localities than in others. He said the soil, atmosphere and other causes made a difference.

V. N. Forbes had known German bees working on red clover one season, but not in others, on the same field.

Spreading Brood in the Spring, etc.

Is it advisable to insert empty combs in the centre of a brood-nest for the purpose of spreading brood in the spring? This topic was opened by F. M. Wright. His experience had proved that if done at all, it must be done with great care. It might be advisable when the weather becomes warm, but he would "go slow." He inserted at one time two combs into a strong colony of bees, and it gave them a setback that they did not get over that summer.

Mr. Manum stated that he lets the brood-nest alone; keeps the brood-chamber contracted, and the bees warm. Sometimes he put a comb of honey next to the brood-nest on the outside. He was asked if he practiced feeding meal or salt to bees in the apiary, and replied he had done so in former years, but did not now, and could not say that it did any good.

Preventing Increase.

The following question was led by A. E. Manum, "What is the best method to prevent an increase of colonies?" He had not found it possible to prevent swarming by cutting out queen-cells; he could get more comb honey by allowing the bees to swarm; he then puts two or three swarms together, allowing all the queens but one to return to the old hive with a portion of the swarm. He has prevented increase by living swarms on a few combs, using a queen-excluding honey-board, giving plenty of box-room, and then destroying the old bees in the fall, as they would be likely to die before spring anyway. Another way is to take the queen from the colony, and return her after 15 days, cutting the queen-cells out in the meantime.

H. L. Leonard did not think it possible to prevent swarming, but it could be checked; he would give plenty of box-room, and practice the "tiering up" plan; he would compel bees to care for themselves as much as possible, and would plan to save time as much as any other item.

EVENING SESSION.

The following committees were appointed by the chair: On Nomination—H. L. Leonard, O. J. Lowery, and V. N. Forbes. On Awards—J. W. Smith, P. D. Percival, and M. F. Cram.

On Resolutions—F. H. Wheatley, and Miss Marcia A. Douglas.

Bee-Keeping as a Business.

"Bee-Keeping in Vermont—does it pay?" This topic was opened by R. H. Holmes, who discussed the question under the following heads, as given by N. G. Webster, who was to lead the discussion, but was not present. Its hindrances are a poor location; our long, cold winters; and lack of a thorough knowledge of the business. A person must have good judgment, and plenty of common sense.

Its expenses and profits were set forth in an essay by J. H. Larrabee. He thought the expense of an apiary of 100 colonies of bees, with all the necessary fixtures and utensils for carrying it on successfully, with the addition of a \$200 honey-house, would be worth \$1,000. The average yearly expense he placed at \$620, which included labor, interest, running expenses, etc. The average yearly income was placed at \$800, leaving a net income of \$180 to represent the risks of wintering, disease, the shipping of honey, etc.

The question was closed by H. L. Leonard under the head of "Bee-keeping as a business." He thought nothing was worthy the name of business that would not pay expenses and leave a margin for profit. Bee-keeping would do this. It has its "off years," when it will not pay, like all other kinds of production; but no more so than others. There are but few locations in Vermont where bee-keeping cannot be made to pay to a greater or less extent. There are less enemies to bees than in almost any other section of our country, and the average yield per colony is larger. Bee-keeping in Vermont has paid and will pay, but it is essential that one understands the business and management of the apiary.

Mr. J. Van Deusen, of Sprout Brook, N. Y., said that the formation of the hills and valleys of our State was favorable for honey production, as we would be favored with early and late bloom of the honey-producing plants.

This discussion was followed by an essay by Mrs. F. A. Wolcott, entitled,

The Pleasures and Difficulties of Bee-Keeping.

She thought there was pleasure in seeing the clean, white sections of honey taken from the bees, by some one else, also in preparing it for market, but there were some things not so pleasant; and she related an instance of attempting to hive a refractory swarm, and receiving 33 stings as a reward for her labor. She also spoke of the expenses of the business keeping in advance of the profits for

the first few years, which have to be met first.

Miss Marcia A. Douglas read an essay on the question:

Should Women Keep Bees and Join the Bee-Keepers' Association?

She could speak from experience, that while there was much hard labor in connection with the business, she saw no reason why a woman could not keep bees, to a greater or less extent, as successfully as the sterner sex, provided that she was adapted to the calling, and in love with it. If men were benefited by associations and interchanging of ideas and methods of work, why not women?

THURSDAY MORNING SESSION.

The Secretary's report showed the present membership to be 139; an increase of 30 since the last report. The Treasurer's report showed that the expenses of the past year has been \$33.12, and the receipts, including the amount in the treasury, \$24.02, leaving a deficiency of \$9.10, which was made up by contributions from those present.

It was voted by the members of the association that Art. 5 of the Constitution be amended to read as follows: "Any person may become a member of this association by giving his or her name to the Secretary, and paying annually to the Treasurer a sum not exceeding one dollar, except ladies who shall be admitted free." It was voted that the members be required to pay 50 cents each, to defray expenses for the coming year.

The following were appointed a committee to revise the present Constitution, and bring it before the consideration of the next annual session, P. C. Abbey, H. L. Leonard, R. H. Holmes, and Miss Marcia A. Douglas.

The committee on nominations reported as follows: For President, R. H. Holmes; Vice-Presidents, F. M. Wright, D. S. Hall, and J. E. Crane; Secretary and Treasurer, Miss Marcia A. Douglas. They were then elected as officers for the ensuing year.

The committee on awards reported the exhibits made, and the committee on resolutions presented several resolutions, which were passed. Then the newly elected officers assumed their respective positions, and the next topic was opened by F. H. McFarland, of St. Albans, on

Is It Profitable to Use Full Sheets of Foundation in the Brood-Chamber?

He said it is a waste of wax to use full sheets, although more honey may be secured by their use. In full sheets, the foundation is sure to sag and cause elongated cells near the top, which the queen is slow to occupy. Mr. Lowery advocated the use of starters. Mr. Leonard would use full sheets, even if

they were not wired. Mr. Percival uses full sheets in the middle of the brood-nest with starters on the frames at the sides.

In reply to this question, Mr Manum said if old combs and starters are placed alternately in the brood-box the combs will be bulged. He discouraged the general use of foundation, but thought that the specialist could not afford to do without it.

Mr. Davis, on account of expense, last year tested the use of starters, and being satisfied with the results, tried it again.

As to the width of the starters, some thought an inch better than three or four, while others preferred the latter width.

The Question Drawer.

1. What shall we do with unfinished sections at the close of the honey season? Mr. Manum advised to extract them or feed to the bees between fruit bloom and honey-flow. If candied, uncap and place them over the brood-nest, to be cleaned by the bees.

2. Is it advisable for bee-keepers to join the Bee-Keepers' Union? Mr. Manum said, yes, by all means. It is on the same principle as insurance on buildings.

3. Is it profitable to use a bee-tent to place over the hive during manipulation to prevent robbing? Mr. Leonard said yes.

4. Is comb honey injured by freezing; if so, in what respects? Mr. Manum said that the flavor is unchanged, but the caps are sometimes injured, and the combs cracked.

5. Are bees ever smothered from having the hives covered with snow? Mr. Manum answered no; the more snow the better. When a thaw comes clear the entrance. Dead bees should be removed, as sometimes they clog the entrances, thereby smothering the bees.

The discussion of "Marketing Honey" was participated in enthusiastically. Most of the reports were laughable as well as lamentable. The convention adjourned to meet at the time and place designated by the executive committee.

MARCIA A. DOUGLAS, Sec.

CONVENTION NOTICES.

The Des Moines County Bee-Keepers' Association will hold its next meeting on April 24, 1888, at Burlington, Iowa. JOHN NAU, Sec.

The Hardin County Bee-Keepers' Association will meet at the Court House in Eldora, Iowa, on the second Saturday in each month, at noon (12 o'clock), until further notice. J. W. BUCHANAN, Sec.

The next regular meeting of the Susquehanna County Bee-Keepers' Association will be held at New Milford, Pa., on Saturday, May 5, 1888. H. M. SEELEY, Sec.

CONVENTION DIRECTORY.

1888. Time and Place of Meeting.

Apr. 24.—Des Moines County, at Burlington, Iowa. John Nau, Sec., Middletown, Iowa.

May 5.—Susquehanna County, at New Milford, Pa. H. M. Seeley, Sec., Harford, Pa.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Bees are Quiet, etc.—Geo. G. Scott, Wadena, Iowa, on Jan. 18, 1888, writes:

My 34 colonies of bees are wintering well in the cellar. Thus far they have been as quiet as I ever knew them to be. The temperature is from 38° to 48°. My surplus honey last season was about one-third of a crop, and I was pleased to get that much. Last Sunday the mercury was 44° below zero at sunrise, and again at midnight.

Sections and Separators.—Chas. W. Bradish, Glendale, N. Y., on Jan. 23, 1888, asks the following questions:

As I intend to change my surplus arrangement from two-pound to one-pound sections, and as I have never used any of the latter, I would like to ask: 1. What kind of one-pound sections is the best, all things considered? 2. What advantage are 4 bee-spaces? 3. If separators are used, what width is the best? My bees are now all in good condition. All are alive, and the temperature is from 35° to 40° in the cellar.

[1. The one-piece sections have entirely run all others out.

2. The general opinion expressed by the largest honey-producers at conventions and elsewhere, is that they are of but little if any advantage.

3. Two inches.—Ed.]

Extracts from a Diary.—James F. Johnson, Salem, Mo., on Jan 28, 1888, writes:

The New Year came in warm and cloudy. January 4 was warm and pleasant. The bees had a jubilee, the thermometer being 64° in the shade. The bees carried in water. On Jan. 12 the weather turned cold and stormy. On Jan. 14 we had a blizzard, which left several inches of sleet on the ground. On Jan. 25 the bees had a chance to fly; the sleet and ice melting fast, and the bees looked clean and

bright. On Jan. 28 the weather was still warm and pleasant, and the bees are beginning to prepare for spring.

In reply to L. G. Reed, on page 11, I extract the following from my notes on "Plants for Honey:" "As a substitute for white clover and basswood,—mustard and sunflower. The black walnut tree is also valuable."

Quite Warm.—S. J. Miller, Topeka, Kans., on Jan. 28, 1888, writes:

My bees had a fine flight to-day, it being 70° above zero, and it was uncomfortable in the house unless the windows were raised. I think our winter is broken.

More than Pleased.—F. M. Taintor, Coleraine, Mass., on Jan. 30, 1888, has this to say about the BEE JOURNAL:

I am more than pleased with the new appearance of the BEE JOURNAL. I thought it was perfection before, but now it comes in even a newer and neater appearance, and is a great honor to its publishers. I feel proud in showing it to friends, and at one dollar a year I do not see why every person, keeping even one colony, can afford not to have it.

Good Results.—F. H. Benton, Renovo, Pa., on Jan. 28, 1888, says:

I commenced the season with 10 colonies of bees; increased them to 13, and I got 500 pounds of comb honey, and 100 unfinished one-pound sections. I winter my bees on the summer stands; they each had from 40 to 60 pounds of stores to winter on.

Bees Uneasy in the Cellar.—Robert Cissnan, Hageman, Ind., on Jan. 31, 1888, writes:

I have kept bees in this locality for ten years. The season of 1887 was the poorest that I have experienced. From 115 colonies in fair condition in the spring, I have taken about 100 pounds of comb honey, and increased them to 140 colonies. I had to feed them 300 pounds of sugar for winter stores. They went into winter quarters in light condition. I will have to feed them in the spring. I have wintered my bees in the cellar for the last three seasons, with success. They are not wintering very well now; they are uneasy and crawl out of the hive in great numbers; bloating up as large as their skins will hold. I do not know the cause; it may be that I put too much tartaric acid in the sugar syrup. One-half of the bees in this locality,

kept by to death try to ta ing tha favorab NAL is a it with I co informa

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Got H. H. F on Feb.

My b 1887. in the in the dwindl ter, bu honey and 1,0 have 10 The be were th and I I sell n editor thanks for hon

Bee Fritz, 1888, v In th 1886, p ing, I worked he wou last J were mence later v been observ bright the tor go ove bees d 12 col colon

Fat Hedde 26, 18

It v viewe friend JOURN Pond' moral portan to hav

kept by small bee-keepers, will starve to death before next spring. I will try to take good care of my bees, hoping that next season may be more favorable. The AMERICAN BEE JOURNAL is a welcome visitor. I have read it with interest for the last eight years, and I could not get along without its information.

[Most likely you mixed your syrup in a vessel made of galvanized iron, and the bees were poisoned from the action of the acid on the zinc.—Ed.]

Got Good Prices for Honey.—

H. H. Rosebrock, Owatonna, ♀ Minn., on Feb. 1, 1888, writes :

My bees wintered well in 1886 and 1887. I put in the cellar 90 colonies in the fall of 1886, and took out 90 in the spring of 1887. No "spring dwindling;" prospects were never better, but the dry summer made my honey crop 1,000 pounds of extracted, and 1,000 pounds of comb honey. I have 105 colonies in the cellar now. The bees in my new Heddon hives were the first to swarm last spring, and I like them well for comb honey. I sell my honey at home mostly. The editor of the BEE JOURNAL has my thanks for assisting to get better prices for honey.

Bees and Red Clover.—B. F.

Fritz, Fulton, ♀ Mich., on Jan. 27, 1888, writes :

In the BEE JOURNAL of Nov. 17, 1886, page 731, Joseph Beath, of Corning, Iowa, says, if any one's bees worked on the first crop of red clover he would like to know it. Mine did last June, in large numbers. They were working there when we commenced haying, and were there a week later when we finished. It must have been heavily laden with nectar, as I observed a bee on a pale blossom. The bright sun shone on it, and I could see the tongue in the tube, and it did not go over half way to the bottom. My bees did fairly well last year. I have 12 colonies, all wintering well but two colonies.

Father Langstroth.—Mr. James

Heddon, Dowagiac, ♀ Mich., on Jan. 26, 1888, wrote as follows :

It was with much pleasure that I viewed our genial and genius-faced friend on page 53 of the AMERICAN BEE JOURNAL. It was pleasant to read Mr. Pond's sketch of his life-work, but one moral point, one which is of vast importance to our great benefactor, seems to have been over-looked, viz : Why

should one who did so much for his brothers, now have so little to show for it? What is the trouble? Has he been profligate, spending his money as a whirlwind spends the leaves of a forest, or did ingratitude rob him? Some of us have paid him \$10 each as a small reward for the great benefits we have received, but is it not a truth, and one that should never be left out, when his history is written, that through the action of a few designing men, that this great benefactor and good man was robbed of the due reward of his labors?

[It has been repeatedly stated, that he was defrauded.—Ed.]

Support the Union.—F. A. Snell,

Milledgeville, ♀ Ills., on Jan. 29, 1888, writes :

If necessary for the good of the Bee-Keepers' Union, call on me for a donation of \$1 towards the Defense Fund. The apathy of the bee-keepers is astounding. I should think that every bee-keeper in America would see the great importance of energetically supporting the Bee-Keepers' Union. The Union is supporting right and justice, in every sense of the word. It would be a power in the land supported to the extent that it should be. It has done much by the support of the noble little band of brothers of which it is composed. The Union, I think, should have at least 1,000 members.

Allow me to congratulate the publishers upon the very neat and tasty appearance of the AMERICAN BEE JOURNAL for 1888.

Zephyrs from the West.—F. P.

Stiles, Haverhill, ♀ Mass., on Jan. 28, 1888, writes :

I wish the fellow that works the bellows out your way would kindly point them in the opposite direction. By strict economy, with the aid of the proverbial "east wind diet" of New England, we have managed to live quite comfortably until recently. With the displacement of east wind by your western zephyr, and the necessity of hiring a boy to hold our hair on, the outlook is a disastrous spring dwindling, unless we can unite with some plumber.

Not Discouraged.—F. J. Sawin,

Monmouth, ♀ Ills., on Jan. 30, 1888, writes :

I had 70 colonies of bees, spring count, but I did not get a pound of honey nor a swarm. This was caused by drouth. I packed my bees on the summer stands; they had honey

enough for winter stores, and I thought they would winter well. I examined them to-day, and I find that they have the diarrhea. I expect to lose all of them; but will stock up in the spring, if there are bees enough left in Warren county. I am not discouraged, for we must expect reverses in any business.

The good old AMERICAN BEE JOURNAL in January improved so that I hardly recognized it, when it came on its friendly visit. I could not keep bees without it, and do not see how any one else can.

Wishing that the Bees were in a Cellar or Cave.—M. Miller,

Le Claire, ♀ Iowa, on Jan. 27, 1888, writes :

It has been one month and two days since the bees in this country have had a flight. It has been quite cold most of the time. We had a thaw for two days last week, but there was no sunshine; consequently the bees did not have a flight. Lots of bees went into winter quarters short of stores; consequently there will likely be considerable loss, especially if this cold weather continues long. I wish I had mine in a good cave or cellar. They are packed on the summer stands.

Right Temperature for Bees.

—W. B. Stephens, Stephen's Mills, ♀ N. Y., on Jan. 24, 1888, says :

I commenced the season of 1887 with 157 colonies of bees, and increased them, by natural swarming, to 230 colonies. They stored 6,000 pounds of honey in one-pound sections, and 2,000 pounds of extracted honey. I have 146 colonies packed with chaff, and 84 colonies in the cellar, all being in good condition. The bees in the cellar are the most quiet with the temperature at 40°. I have had it above and below that point, but 40° seems to be about right.

Bees Wintering Satisfactorily.

—W. Mason, Fillmore, ♀ Ind., on Jan. 25, 1888, writes :

The bees are so far wintering well, notwithstanding a heavy crop of honeydew was stored, but it was of superior quality. Reports from all parts of the State at our convention was satisfactory. The attendance was not as large as common, but the meeting was interesting. We were honored with the Agricultural Room in the new State House. After the adjournment we were shown through the basement of the building, where we obtained much information.

Newaygo Co., Mich., Convention.

The Newaygo County Farmers' and Bee-Keepers' Association will hold their annual institute at the Congregational Church, Fremont, on Thursday and Friday, Feb. 9 and 10, 1888.

Programme Thursday, Feb. 9, morning session, 9 o'clock sharp—Music by the Fremont Glee Club. Prayer by Rev. J. Roberts. Music by the Glee Club. President J. B. Jewell's annual address. Address of Welcome, by Joseph Gerber, President of the F. B. M. A. Sheep Husbandry, Mrs. P. W. Hall. Corn is King, Thos. Stuart.

Afternoon Session, Thursday, 2 p.m.—The Roman Standard of Agriculture, M. W. Scott. Under Draining, Wilkes Stuart. The Most Profitable Breed of Horses for the Farm, S. V. Walker. The Farm Boys of Michigan, Mrs. M. W. Scott.

Morning Session, Friday, Feb. 10.—Music by the Glee Club. Prayer by Elder Gardner. Music by the Glee Club. The Relative Benefits of a Creamery to the Village and Country, J. R. Dudley. Practical Bee-Keeping, W. E. Gould. Secretary's Report.

Afternoon Session, Friday, 2 p.m.—Election of officers. The Best Orchard Fruits for Western Michigan, Irwin C. Fox. The Relative Benefits of Apiculture, Horticulture and Agriculture, Geo. E. Hilton. Selection of time and place for the next meeting. Adjournment.

GEO. E. HILTON, Sec.

One of our Correspondents asks this question :

What proportion of first swarms, placed in a single section of a Heddon hive, will re-swarm, if a queen-excluding honey-board and plenty of crates for surplus comb-honey is furnished to the colony?—E. D. K.

By request, Mr. Heddon answers the question thus :

With my experience during the past four summers, I reply—no greater proportion than with any other hive, whether controlled or not. The contracting system which reduced the brood-chambers of the Langstroth hives and others down to the size of one case of our divisible brood-chamber, was practiced years before the new hive and system was dreamed of, and no trouble from re-swarming was reported. Some seasons swarms of that year re-swarm to some considerable extent, but they do it alike from all kinds of hives. At least this has been my experience.

New Catalogues for 1888 are on our desk, from the following persons:

B. J. Miller & Co., Nappanee, Ind.—20 pages—Bee-Supplies.

James J. H. Gregory, Marblehead, Mass.—56 pages—Vegetable, Flower, and Grain Seeds.

John Nebel & Son, High Hill, Mo.—10 pages—Bees, Queens, and Bee-Keepers' Supplies.

E. Kretschmer, Coburg, Iowa—30 pages—Bee-Keepers' Supplies.

Northrup, Braslan & Goodwin, Minneapolis, Minn.—50 pages—Farm, Vegetable and Flower Seeds.

J. D. Goodrich, East Hardwick, Vt.—12 pages—Hives and Bee-Supplies.

E. M. Bullard, West Swanzy, N. H.—12 pages—Poultry and Flower Seeds.

Please to get your Neighbor who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now SO CHEAP that no one can afford to do without it.



ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post office and get your mail at another, be sure to give the address that we have on our list.

Hilton's new pamphlet on Comb Honey Production has been reduced in price to 5 cents. For sale at this office.

Simmins' Non-Swarming System will be clubbed with the BEE JOURNAL for one year, both postpaid, for \$1.25.

Beeswax.—We will pay 20 cents per pound, delivered here, for Yellow Beeswax. To avoid mistakes, the name of the shipper should always be on each package.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write American Bee Journal on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Money Orders for \$5.00 and under, cost 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: \$8.00 per bushel; \$2.25 per peck; 25 cents per lb. *White Clover Seed*: \$10.00 per bushel; \$2.75 per peck; 30 cents per lb. *Sweet, or Melilot, Clover Seed*: \$6.00 per bushel; \$1.75 per peck; 20 cents per lb.—by express or freight.

Photographs of Bee-Keepers.—The "medley" gotten up by E. O. Tuttle, containing the faces of 131 representative apiarists, and a printed sketch of each one, will be sent with the BEE JOURNAL for one year for \$1.75; or we will present it free, by mail, to any one, for a club of three subscribers and \$3.00.

The Convention.—The pamphlet containing the report of the proceedings of the Union Convention in Chicago, is now published, and can be obtained at this office for 25 cents. Or bound up with the history of the International Society, and a full report of the Detroit and Indianapolis conventions, for 50 cents, postpaid.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	Club
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 40
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	2 00	1 80
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 90	5 00
and Cook's Manual	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Simmins' Non-Swarming	1 50	1 25
Western World Guide	1 50	1 30
Heddon's book, "Success"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Iowa Homestead	2 00	1 90
Cabbage and Celery	1 25	1 15
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Every Subscriber is our authorized agent; we have no others, and we greatly desire that each one would at least send in the name of one new subscriber with his own renewal for 1888. The next few weeks is the time to do this. We hope that every subscriber will do his or her best to double our list of subscribers.

This is the Time for reading. The long winter evenings can be utilized by reading up bee-literature. We have all the newest bee-books, and can fill all orders on the day they are received.

We Club the AMERICAN BEE JOURNAL and the "Bee-Keepers' Magazine" for one year for \$1.40; or with "Gleanings in Bee-Culture" for \$1.75; or with the "Apiculturist" for \$1.80; or the "Canadian Honey-Producer" for \$1.30; with the Bee-Keepers' Review, \$1.40; or all six for \$4.00.

One Dollar invested for the weekly visits of the AMERICAN BEE JOURNAL for 1888, will repay every apiarist in America.

Should Any One receive this paper any longer than it is desired, or is willing to pay for it, please send us a postal card, asking to have it stopped. Be sure to write your name and address plainly. *Look at your wrapper-label.*

A Favorable Word from any of our readers, who speak from experience, has more weight with friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

A Pocket Dictionary will be presented for two subscribers with \$2.00. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.